

We claim:

1. A method for increasing the survival or growth of motoneurons comprising exposing the motoneurons to a low molecular weight heparin.  
5
2. A method for treating of a motoneuron disease in a patient in need thereof comprising administering to the patient a pharmaceutically effective amount of a low molecular weight heparin.
- 10 3. The method according to claim 2 wherein the motoneuron disease is amyotrophic lateral sclerosis, progressive spinal muscular atrophy, infantile muscular atrophy or lateral sclerosis.
4. The method according to one of claims 1 to 3, wherein the low molecular  
15 weight heparin has a mean molecular weight of between 1000 and 10000 daltons.
5. The method according to claim 4, wherein the low molecular weight heparin has a mean molecular weight of between 1500 and 6000 daltons.
- 20 6. The method according to claim 4, wherein the low molecular weight heparin has a mean molecular weight of between 4000 and 5000 daltons.
7. The method according to one of claims 1 to 3, wherein the low molecular weight heparin consists of oligosaccharides having a 2-O-sulfo-  
25 4-enopyranosuronic acid at one of their ends.
8. The method according to one of claims 1 to 3, wherein the low molecular weight heparin is obtained by depolymerization of a heparin ester using a base.
- 30 9. The method according to one of claims 1 to 3, wherein the low molecular weight heparin is enoxaparin.

10. The method according to one of claims 1 to 3, wherein the low molecular weight heparin is nadroparin.
- 5 11. The method according to one of claims 1 to 3, wherein the low molecular weight heparin is parnaparin.
12. The method according to one of claims 1 to 3, wherein the low molecular weight heparin is reviparin.
- 10 13. The method according to one of claims 1 to 3, wherein the low molecular weight heparin is dalteparin.
14. The method according to one of claims 1 to 3, wherein the low molecular weight heparin is tinzaparin.
- 15 15. The method according to one of claims 1 to 3, wherein the low molecular weight heparin is danaparoid.
- 20 16. The method according to one of claims 1 to 3, wherein the low molecular weight heparin is ardeparin.
17. The method according to one of claims 1 to 3, wherein the low molecular weight heparin is certoparin.
- 25 18. The method according to one of claims 1 to 3, wherein the low molecular weight heparin is CY222.
19. The method according to one of claims 1 to 3, wherein the low molecular weight heparin is SR90107/ORG31540.
- 30